

REMARKS

Status of the Claims

Claims 40-58 are pending in the present application, Claims 1-39 having been canceled in the present amendment in response to a restriction requirement, Claims 41, 47, 48, 52, and 54 have been amended to correct grammatical errors, and new Claims 57 and 58 having been added in the present amendment.

Claims Rejected under 35 U.S.C. § 102

The Examiner has rejected Claims 40-47, 51, 52 and 54 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,384,850 (McNally). The Examiner asserts that McNally teaches a menu template, a menu template modifier, and a menu database, where a menu is generated by the modifier based upon the template and the data in the database. The Examiner further asserts that each element in Claims 40-47, 51, 52, and 54 is disclosed in McNally's patent. Applicant respectfully disagrees for the following reasons.

McNally describes techniques for generating a plurality of menus using a database of potential menu items. While a preferred embodiment is directed to generating menus of food items for use in restaurants, McNally indicates that the techniques he describes can also be used to facilitate the creation of user personalized file structures for general desktop use. McNally's disclosure includes terms that are common to applicant's claims, including "template," "modifier," and "database." However, a reasoned analysis of the disclosure provided by the prior art, compared to the recitation included in applicant's claims, shows that McNally does not teach or suggest an equivalent to applicant's claimed approach.

A significant aspect of applicant's novel approach, which *is* articulated in applicant's claims, but *is not* disclosed or suggested by McNally, is the use of a menu template that enables compact data storage of a plurality of menus to be achieved. While McNally discloses the use of a plurality of different menus, for example, that a breakfast menu, a lunch menu, and a dinner menu can all be generated and stored as separate data structures using the techniques disclosed by McNally (see column 8, lines 60 to 65), each of these different menus is created and stored (as a complete menu) for subsequent retrieval. By comparison, in applicant's claim recitation, rather than storing a complete menu, an instruction set (i.e., a menu record or database record uniquely corresponding to a previously generated menu) is stored, such that a processor (e.g., acting as a menu template modifier)

1 can use a menu template and the instruction set to re-create the menu immediately before it is
2 displayed to a user. Significantly, the instruction set is significantly smaller than the menu itself.
3 When a plurality of different menus are stored in a menu database as instruction sets (or menu
4 records) rather than being stored as complete menus, the aggregate memory resource savings can be
5 considerable. While this difference might not be very significant when only a "breakfast menu," a
6 "lunch menu," and a "dinner menu" are being stored as taught by McNally, applicant's claimed
7 approach has utility in connection with a database including thousands of different individual menus,
8 where the aggregate memory resource savings will be very significant. Note that this distinction
9 would be particularly significant where the plurality of menus are used to facilitate the creation of
10 user personalized file structures for general desktop use. While McNally's techniques certainly can
11 be used to initially create data file structures, McNally completely fails to teach or suggest that
12 memory resource savings can be achieved by saving instruction sets used to re-create a previously
13 generated menu, rather than simply saving the menus themselves.

14 These differences are most clearly articulated by the following subparagraphs of applicant's
15 Claim 40:

20 A related significant difference between applicant's claimed approach and the disclosure
21 provided by McNally pertains to the events that occur when a previously developed menu has been
22 selected for display. According to McNally and conventional practice in the computer arts, once a
23 menu or data structure has been created, the entire menu is stored in a memory for later use. Later,
24 when that menu is selected for use, minimal processing is required to display the menu, since its
25 structure is previously defined and stored. In accord with applicant's novel approach as defined by
26 Claim 40, additional processing is required to display a menu that was previously designed, because
27 the menu is not stored in a complete form. Instead, a menu record is stored, and the menu record
28 contains sufficient information such that a processor (e.g., serving as the menu template modifier) can
29 use the data contained in the menu record with the menu template to recreate or generate the menu
30 immediately before it is displayed to the user. Such a process is claimed in subparagraph (c) of

1 applicant's Claim 40. The menu template modifier, the menu template, and a database record are
2 used to generate the desired menu, which had already been stored in the menu database as a database
3 record, as opposed to being stored as the actual menu. McNally simply does not teach or suggest an
4 equivalent process.

5 McNally refers to the use of a template (FIGURE 7), a processor, database records
6 corresponding to potential menu items (i.e., the entrée, dessert, and appetizer data that are displayed
7 in FIGURE 1), and modifiers (i.e., meat temperature, and vegetables to be served with an entrée) to
8 initially generate a menu that is stored *in a complete form* in a database, such that a user can later
9 retrieve that menu without regenerating it. However, such a process simply is not equivalent to the
10 steps recited in applicant's Claim 40, which as noted above, specifically recite that a user is enabled
11 to select a desired menu from a menu database (clearly, the desired menu has already been
12 developed, otherwise it could not have been stored in the menu database, albeit as a menu record or
13 instruction set, rather than as the menu itself), and then the menu template, the menu template
14 modifier, and the database record (the data actually stored in the menu database in place of storing
15 the desired menu itself, to reduce the amount of data that must be stored) are used to reproduce the
16 desired menu for display to a user. McNally does not teach or suggest that a menu template and a
17 database record *defining an appearance and a functionality of the menu items included within the*
18 *desired menu* are required to re-create the desired menu for display to a user.

19 Essentially, applicant's recitation in subparagraph (c) of Claim 40 cannot be logically parsed
20 to correspond to the techniques disclosed by McNally, because McNally's database record of
21 different menu items and McNally's menu template are not used to retrieve a previously generated
22 menu from storage, such that the previously generated menu can again be generated and displayed to
23 a user. Claim 40, and each claim dependent thereon is therefore patentably distinguishable from
24 McNally. Accordingly, the rejection of Claims 40-49 as being anticipated by McNally should be
25 withdrawn.

26 Claim 52 defines an article of manufacture (such as a diskette disc or other memory media)
27 including machine instructions for implementing a plurality of functions generally consistent with the
28 steps recited in Claim 40. The following functions are particularly significant.

29 (i) *enable a user to select a desired menu in a menu database opened in a*
30 *database program;*

(ii) access a menu template, a menu template modifier, and a plurality of database records in which data are included that define an appearance of the desired menu, and an appearance and functionality for a plurality of menu items included in the desired menu;

(iii) use the menu template, the menu template modifier, and the plurality of database records to recreate the desired menu;

Note that a user selects a menu in a database. Logically, such a menu has already been created, and at least a reference to it must exist in a stored form in the database for a user to be able to select it. Thus, the recited functions do not include the initial generation of a database, which is the type of process disclosed by McNally. A menu template, a menu template modifier, and a plurality of database records defining an appearance of the desired menu are used to re-create the desired menu (note the term re-create is specifically employed in Claim 52). Once again, applicant's claimed process enables a plurality of menus to be defined and the information needed to recreate the plurality of menus stored in a format requiring fewer memory resources. Thus, these functions are patentably distinguishable from those disclosed by McNally. It should be noted that while in a particularly preferred embodiment, there is a one-to-one correspondence between a database record and a particular menu, so that each menu is associated with a unique database record, it should also be recognized that a plurality of different database records can be used to store a unique menu in a compressed format.

Claim 52, and each claim dependent thereon, is therefore novel and non-obvious over McNally. Accordingly, the rejection of Claims 52 and 53 as being anticipated by McNally should be withdrawn.

Claim 54 recites a system with a memory that stores machine instructions to carry out functions substantially similar to those recited in Claim 52; thus, Claim 54, and each claim dependent thereon, is also patentably distinguishable from McNally. Accordingly, the rejection of Claims 54-56 as being anticipated by McNally should be withdrawn.

Claims Rejected under 35 U.S.C. § 103

The Examiner has further rejected Claim 48 under 35 U.S.C. § 103(a) as being obvious over McNally in view of U.S. Patent No. 6,549,890 (Mundell). The Examiner also rejects Claims 49, 50, 53, 55, and 56 under 35 U.S.C. § 103(a) as being obvious over McNally in view of Banerjee (U.S. Patent No. 6,760,017). In these rejections, the Examiner has recognized that none of the references

1 alone teaches the elements recited in applicant's claims; however, the Examiner asserts that it would
2 have been obvious to one of ordinary skill in the art to combine elements disclosed by McNally, with
3 elements disclosed by Mundell and/or Banerjee, to achieve an equivalent to the recitation in
4 applicant's claims. Applicant respectfully disagrees for the following reasons.

5 As discussed above in detail, McNally does not teach or suggest an approach equivalent to
6 that recited in applicant's independent Claims 40, 52, and 54. None of the additional art cited by the
7 Examiner provides any motivation to one of ordinary skill in the art to modify McNally's disclosure
8 to achieve an equivalent to that recited by applicant. Further, there isn't any evidence that such a
9 modification would solve a problem recognized by those in the art. Still further, the combination of
10 references indicated by the Examiner fails to achieve an equivalent to what applicant has claimed.
11 Since dependent claims are patentable for at least the same reasons as the claims upon which they
12 depend, Claims 48, 49, 50, 53, 55, and 56 are patentable for the same reasons discussed above with
13 respect to the rejection over McNally alone. Accordingly, the rejection of Claims 48, 49, 50, 53, 55,
14 and 56 as being obvious over the various combinations of references noted above should be
15 withdrawn.

16 Claim 50 specifically recites that *the spatial organization of the menu items generally*
17 *duplicates a spatial organization of at least a portion of a plurality of keys on a numeric keypad*. The
18 Examiner asserts that Banerjee (U.S. Patent No. 6,760,017) discloses displaying menu items in a
19 spatial organization so that each item has a one-to-one relationship to the keys on a numeric keypad,
20 as shown in Figure 66. Although Figure 66 schematically illustrates an On-Screen Keyboard being
21 displayed on a wireless interface device; the On-Screen Keyboard in Figure 66 does not display *any*
22 menu items. Instead, it is simply a virtual keyboard that is displayed on a touch sensitive screen, so
23 that the user can interact with the virtual keyboard using a stylus or pen, as an alternative to the use of
24 a conventional keyboard. Fisher (U.S. Patent No. 5,694,562) discloses a graphical user interface
25 displaying a menu that includes both a plurality of menu items *and* keyboard icons corresponding to
26 function keys 1-10 on a standard computer keyboard. Significantly, the menu items themselves do
27 not duplicate a spatial organization of any portion of a keyboard. Retter (U.S. Patent No. 5,825,362)
28 discloses a graphical user interface displaying a menu configured to duplicate the spatial organization
29 of a core portion of a standard QWERTY keyboard (i.e., 32 keys including the alphabet portion of a
30 QWERTY keyboard, but not including numerical keys, function keys, and the numeric keypad

1 portion of a typical QWERTY keyboard). Thus, the menu items of Retter generally duplicate the
2 spatial organization of only the alphabet portion of a QWERTY keyboard. Significantly, the cited art
3 does not teach displaying a menu to a user, where the spatial orientation of the menu items generally
4 duplicates a numeric keypad. Retter specifically teaches that the 32 keys comprising the core portion
5 of a QWERTY keyboard (i.e., but not including the function keys, the numeric keys, and the numeric
6 keypad) provides sufficient space for hierarchical displays of navigation functions and task functions
7 for programs commonly run on PCs, (column 6, lines 45-54), strongly suggesting that fewer keys
8 (i.e., a numeric keypad) would be insufficient. Because the cited art provides no suggestion that
9 Retter's display of menu items using the spatial organization of the core portion of a QWERTY
10 keyboard should be modified to use the spatial organization of a *numeric keypad*, and because there
11 is no evidence that such a modification would solve a problem recognized in the art, the Examiner's
12 assertion that such a modification would be obvious represents an impermissible use of hindsight.
13 Claim 50 distinguishes over the prior art for this additional reason.

14 Patentability of Newly Added Claims 57 and 58

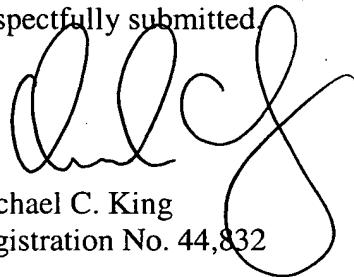
15 Applicant has added new Claim 57, which is substantially similar to original Claim 40, but
16 which has been modified to employ slightly different language to make the distinguishing differences
17 discussed above in detail more readily apparent. Claim 57 also includes language indicating that
18 each menu can be displayed to a user in its entirety, at the same time. It should be noted that
19 McNally discloses menus, such as breakfast menus, which actually include more menu items than
20 can be displayed to user at one time. Applicant's menus refer to the more conventional computer
21 related definition of a menu, wherein a plurality of different menu items are displayed to a user, such
22 that a user can make a selection of the displayed menu items to achieve a desired result.

23 Applicant has further added new Claim 58, which recites that the machine instructions recited
24 as being stored in the article of manufacture of Claim 52, when executed by a processor, further *cause*
25 *the actuation of a specific key to execute an action by accessing data in the plurality of database*
26 *records corresponding to the desired menu to enable the action to be executed*. Significantly, there is
27 no evidence that when a particular menu item is selected in a menu developed using McNally's
28 techniques, *any* records in the menu database need to be accessed to enable any specific action to be
29 executed. In other words, a PDA, or other computing device on which a breakfast menu (or some
30 other menu) developed using McNally's techniques is accessed, does not appear to simultaneously

1 require access to a menu database comprising a plurality of database records, such that the processor
2 enabling the breakfast menu to be displayed to a user can access the menu database to retrieve data
3 required to implement specific actions. McNally's disclosure simply indicates that when a menu is
4 *being developed*, access to a menu database including a plurality of menu items is required to enable
5 the menu to be initially generated. However, there is no evidence that once the menu has been
6 created using McNally's techniques, the computing device enabling the menu to be displayed is
7 required to have access to the menu database to facilitate implementing any action linked to a specific
8 menu item.

9 In view of the amendments and Remarks set forth above, it will be apparent that the claims in
10 this application define a novel and non-obvious invention, and that the application is in condition for
11 allowance and should be passed to issue without further delay. Should any further questions remain,
12 the Examiner is invited to telephone applicant's attorney at the number listed below.

13
14 Respectfully submitted,



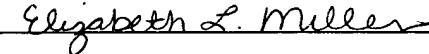
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20 MAILING CERTIFICATE

21 I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed
22 envelope as first class mail with postage thereon fully prepaid addressed to: Commissioner for Patents,
23 Alexandria, VA 22313-1450, on October 18, 2005.

24 Date: October 18, 2005



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